



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

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January 29, 2015

Mr. Paul Rosasco, P.E.  
Engineering Management Support, Inc.  
7220 West Jefferson Avenue, Suite 406  
Lakewood, CO 80235

RE: Comments on Estimated Volumes for Partial Excavation Options Identified by EPA,  
West Lake Landfill Operable Unit-1, dated October 31, 2014

Dear Mr. Rosasco:

The Missouri Department of Natural Resources has completed its review of the document titled "Estimated Volumes for Partial Excavation Options Identified by EPA" prepared by Engineering Management Support Inc. (EMSI). This document was requested by the Environmental Protection Agency (EPA) to use in development of the Partial Excavation Alternative analysis as part of an addendum to the Supplemental Feasibility Study (SFS). The Department offers the following comments on this document:

### Volume Calculations

Please include calculations for the volume of assumed principal threat waste that may be removed under each of the partial excavation scenarios in order to provide such information to EPA for consideration in selecting the appropriate scenario to include in the Partial Excavation Alternative analysis.

EPA requested by letter dated October 12, 2012 that the Partial Excavation Alternative analysis be conducted "at a level of detail comparable to the alternatives already analyzed in the SFS." The SFS states in Section 2.2.8, page 22, "Because the purpose of the SFS is to provide a thorough evaluation of the potential 'complete rad removal' alternatives relative to the ROD-selected remedy, it is conservatively assumed that principal threat wastes may be present within OU-1." The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) states that EPA expects to use "treatment to address the principal threats posed by a site, wherever practicable." The SFS goes on to state in Section 6.1.4, page 142, "The NCP prefers remedial actions in which treatment is used to reduce the principal threats at a site through destruction of toxic contaminants, irreversible reduction in contaminant mobility, or reduction of total volume of contaminated media." These NCP expectations are presented in EPA's guidance titled, "A Guide to Principal Threat and Low Level Threat Wastes," November 1991.

Therefore, for each of the scenarios presented in this document (i.e. 79 pCi/g, 1,000 pCi/g, and 16-foot scenario); please include calculations for the volume of assumed principal threat waste that may be removed. Also please include discussion on how each scenario will result in reduction in contaminant mobility (i.e. placement of partial excavation materials in a properly engineered disposal cell). The information on reduction of volume and mobility of principal threat wastes under each scenario should be provided to EPA for consideration in selecting the appropriate scenario to include in the Partial Excavation Alternative analysis per the NCP expectations. The Partial Excavation Alternative analysis will then be included in the addendum to the SFS in order to perform remedial alternative analysis and ultimately, selection of a final remedy.

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Section 4. Uncertainties

The Department does not understand the purpose of Section 4 within this document and suggests it be removed. The second sentence of Section 4 states, "The 'back of the envelope' estimated volumes for the three partial excavation scenarios were not developed to the same level of detail as was attained for the 'complete rad removal' alternatives presented in the SFS." However, the document states in Section 2.1, page 3, "Intervals containing or suspected to contain radionuclide activities above the 79 pCi/g / 60,000 cpm criteria were then plotted in three dimensions and located within the overall waste mass using the same methodology as was employed to estimate the volume of solid waste materials to be removed under the 'complete rad removal' alternative of the SFS." A similar statement exists in Section 2.2 for the 1000 pCi/g / 500,000 cpm scenario. This directly contradicts the uncertainty argument. Therefore, we suggest removing Section 4 from the document.

In addition, reference to fill placed under the Materials Management Plan (MMP) should not be considered in the feasibility of a partial excavation alternative as the intent of the MMP was to "not prejudice the selected remedy or preclude any of the potential remedial alternatives" and have "no effect on the implementability of any of the potential remedial actions". This section appears to be an attempt to include arbitrary argument in order to prejudice the partial excavation alternative which was not requested by EPA. Again, we suggest removing this section and all references to it from the document.

Thank you for giving us the opportunity to review and comment on this document. If you have any questions pertaining to this letter, please contact me by phone at (573)751-3107; by written correspondence to my attention at the Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102; or email to [shawn.muenks@dnr.mo.gov](mailto:shawn.muenks@dnr.mo.gov).

Sincerely,

HAZARDOUS WASTE PROGRAM



Shawn Muenks, P.E.  
Federal Facilities Section

SM:db

c: Mr. Brad Vann, U.S. Environmental Protection Agency  
Mr. Chris Nagel, Director, Solid Waste Management Program